

SEQUENCE LISTING

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<120> PHOSPHATASE REGULATION OF NUCLEIC ACID TRANSCRIPTION

<130> 00015-041US1

<140> US/10/552,298

<141> 2005-09-30

<150> US 60/459,786

<151> 2003-04-01

<160> 69

<170> PatentIn version 3.5

<210> 1

<211> 783

<212> DNA

<213> Homo sapiens

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<213> Homo sapiens

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Gly Pro Leu Arg Gly Lys Gly Asp Gln Lys Ser Ala Ala Ser Gln Lys
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Pro Arg Ser Arg Gly Ile Leu His Ser Leu Phe Cys Cys Val Cys Arg
35 40 45

Asp Asp Gly Glu Ala Leu Pro Ala His Ser Gly Ala Pro Leu Leu Val
50 55 60

Glu Glu Asn Gly Ala Ile Pro Lys Thr Pro Val Gln Tyr Leu Leu Pro
65 70 75 80

Glu Ala Lys Ala Gln Asp Ser Asp Lys Ile Cys Val Val Ile Asp Leu
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Asp Glu Thr Leu Val His Ser Ser Phe Lys Pro Val Asn Asn Ala Asp
100 105 110

Phe Ile Ile Pro Val Glu Ile Asp Gly Val Val His Gln Val Tyr Val
115 120 125

Leu Lys Arg Pro His Val Asp Glu Phe Leu Gln Arg Met Gly Glu Leu
130 135 140

Phe Glu Cys Val Leu Phe Thr Ala Ser Leu Ala Lys Tyr Ala Asp Pro
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Val Ala Asp Leu Leu Asp Lys Trp Gly Ala Phe Arg Ala Arg Leu Phe
165 170 175

Arg Glu Ser Cys Val Phe His Arg Gly Asn Tyr Val Lys Asp Leu Ser
180 185 190

Arg Leu Gly Arg Asp Leu Arg Arg Val Leu Ile Leu Asp Asn Ser Pro
195 200 205

Ala Ser Tyr Val Phe His Pro Asp Asn Ala Val Pro Val Ala Ser Trp
210 215 220

Phe Asp Asn Met Ser Asp Thr Glu Leu His Asp Leu Leu Pro Phe Phe
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Glu Gln Leu Ser Arg Val Asp Asp Val Tyr Ser Val Leu Arg Gln Pro
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Arg Pro Gly Ser
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<212> PRT
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 His Val Gly Gln Ser Ser Ser Ser Thr Glu Leu Ala Ala Tyr Lys Glu
 50 55 60
 Glu Ala Asn Thr Ile Ala Lys Ser Asp Leu Leu Gln Cys Leu Gln Tyr
 65 70 75 80
 Gln Phe Tyr Gln Ile Pro Gly Thr Cys Leu Leu Pro Glu Val Thr Glu
 85 90 95
 Glu Asp Gln Gly Arg Ile Cys Val Val Ile Asp Leu Asp Glu Thr Leu
 100 105 110
 Val His Ser Ser Phe Lys Pro Ile Asn Asn Ala Asp Phe Ile Val Pro
 115 120 125
 Ile Glu Ile Glu Gly Thr Thr His Gln Val Tyr Val Leu Lys Arg Pro
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 Tyr Val Asp Glu Phe Leu Arg Arg Met Gly Glu Leu Phe Glu Cys Val
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 Leu Phe Thr Ala Ser Leu Ala Lys Tyr Ala Asp Pro Val Thr Asp Leu
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 Leu Asp Arg Cys Gly Val Phe Arg Ala Arg Leu Phe Arg Glu Ser Cys
 180 185 190
 Val Phe His Gln Gly Cys Tyr Val Lys Asp Leu Ser Arg Leu Gly Arg
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 Asp Leu Arg Lys Thr Leu Ile Leu Asp Asn Ser Pro Ala Ser Tyr Ile
 210 215 220
 Phe His Pro Glu Asn Ala Val Pro Val Gln Ser Trp Phe Asp Asp Met
 225 230 235 240
 Ala Asp Thr Glu Leu Leu Asn Leu Ile Pro Ile Phe Glu Glu Leu Ser
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 <213> Homo sapiens

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 Ser Leu Lys Lys Gln Arg Ser Arg Ser Ile Leu Ser Ser Phe Phe Cys
 35 40 45
 Cys Phe Arg Asp Tyr Asn Val Glu Ala Pro Pro Pro Ser Ser Pro Ser
 50 55 60

Val Leu Pro Pro Leu Val Glu Glu Asn Gly Gly Leu Gln Lys Pro Pro
 65 70 75 80

Ala Lys Tyr Leu Leu Pro Glu Val Thr Val Leu Asp Tyr Gly Lys Lys
 85 90 95

Cys Val Val Ile Asp Leu Asp Glu Thr Leu Val His Ser Ser Phe Lys
 100 105 110

Pro Ile Ser Asn Ala Asp Phe Ile Val Pro Val Glu Ile Asp Gly Thr
 115 120 125

Ile His Gln Val Tyr Val Leu Lys Arg Pro His Val Asp Glu Phe Leu
 130 135 140

Gln Arg Met Gly Gln Leu Phe Glu Cys Val Leu Phe Thr Ala Ser Leu
 145 150 155 160

Ala Lys Tyr Ala Asp Pro Val Ala Asp Leu Leu Asp Arg Trp Gly Val
 165 170 175

Phe Arg Ala Arg Leu Phe Arg Glu Ser Cys Val Phe His Arg Gly Asn
 180 185 190

Tyr Val Lys Asp Leu Ser Arg Leu Gly Arg Glu Leu Ser Lys Val Ile
 195 200 205

Ile Val Asp Asn Ser Pro Ala Ser Tyr Ile Phe His Pro Glu Asn Ala
 210 215 220

Val Pro Val Gln Ser Trp Phe Asp Asp Met Thr Asp Thr Glu Leu Leu
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Ser Met Leu His Arg Leu Cys Asn Arg
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<213> Homo sapiens

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<400> 8

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Arg Arg Met Ala Pro Ser Leu Arg Gln Thr Pro Val Gln Tyr Leu Leu
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Pro Glu Ala Lys Ala Gln Asp Ser Asp Lys Ile Cys Val Val Ile Asp
          35              40              45

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Leu Asp Glu Thr Leu Val His Ser Ser Phe Lys Pro Val Asn Asn Ala
          50              55              60

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Asp Phe Ile Ile Pro Val Glu Ile Asp Gly Val Val His Gln Val Tyr
65              70              75              80

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Val Leu Lys Arg Pro His Val Asp Glu Phe Leu Gln Arg Met Gly Glu
          85              90              95

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Leu Phe Glu Cys Val Leu Phe Thr Ala Ser Leu Ala Lys Tyr Ala Asp
          100              105              110

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Pro Val Ala Asp Leu Leu Asp Lys Trp Gly Ala Phe Arg Ala Arg Leu
          115              120              125

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Phe Arg Glu Ser Cys Val Phe His Arg Gly Asn Tyr Val Lys Asp Leu

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Ser Arg Leu Gly Arg Asp Leu Arg Arg Val Leu Ile Leu Asp Asn Ser		
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Pro Ala Ser Tyr Val Phe His Pro Asp Asn Ala Val Pro Val Ala Ser		
	165	170 175
Trp Phe Asp Asn Met Ser Asp Thr Glu Leu His Asp Leu Leu Pro Phe		
	180	185 190
Phe Glu Gln Leu Ser Arg Val Asp Asp Val Tyr Ser Val Leu Arg Gln		
	195	200 205
Pro Arg Pro Gly Ser		
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 <213> Drosophila

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<213> Drosophila

<400> 10

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Gly Pro Leu Arg Gly Lys Gly Asp Gln Lys Ser Ala Ala Ser Gln Lys
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Pro Arg Ser Arg Gly Ile Leu His Ser Leu Phe Cys Cys Val Cys Arg
35 40 45

Asp Asp Gly Glu Ala Leu Pro Ala His Ser Gly Ala Pro Leu Leu Val
50 55 60

Glu Glu Asn Gly Ala Ile Pro Lys Thr Pro Val Gln Tyr Leu Leu Pro
65 70 75 80

Glu Ala Lys Ala Gln Asp Ser Asp Lys Ile Cys Val Val Ile Glu Leu
85 90 95

Asn Glu Thr Leu Val His Ser Ser Phe Lys Pro Val Asn Asn Ala Asp
100 105 110

Phe Ile Ile Pro Val Glu Ile Asp Gly Val Val His Gln Val Tyr Val
115 120 125

Leu Lys Arg Pro His Val Asp Glu Phe Leu Gln Arg Met Gly Glu Leu
130 135 140

Phe Glu Cys Val Leu Phe Thr Ala Ser Leu Ala Lys Tyr Ala Asp Pro
145 150 155 160

Val Ala Asp Leu Leu Asp Lys Trp Gly Ala Phe Arg Ala Arg Leu Phe
165 170 175

Arg Glu Ser Cys Val Phe His Arg Gly Asn Tyr Val Lys Asp Leu Ser
180 185 190

Arg Leu Gly Arg Asp Leu Arg Arg Val Leu Ile Leu Asp Asn Ser Pro
195 200 205

Ala Ser Tyr Val Phe His Pro Asp Asn Ala Val Pro Val Ala Ser Trp
210 215 220

Phe Asp Asn Met Ser Asp Thr Glu Leu His Asp Leu Leu Pro Phe Phe

Asp Phe Ile Ile Pro Val Glu Ile Asp Gly Val Val His Gln Val Tyr
65 70 75 80

Val Leu Lys Arg Pro His Val Asp Glu Phe Leu Gln Arg Met Gly Glu
85 90 95

Leu Phe Glu Cys Val Leu Phe Thr Ala Ser Leu Ala Lys Tyr Ala Asp
100 105 110

Pro Val Ala Asp Leu Leu Asp Lys Trp Gly Ala Phe Arg Ala Arg Leu
115 120 125

Phe Arg Glu Ser Cys Val Phe His Arg Gly Asn Tyr Val Lys Asp Leu
130 135 140

Ser Arg Leu Gly Arg Asp Leu Arg Arg Val Leu Ile Leu Asp Asn Ser
145 150 155 160

Pro Ala Ser Tyr Val Phe His Pro Asp Asn Ala Val Pro Val Ala Ser
165 170 175

Trp Phe Asp Asn Met Ser Asp Thr Glu Leu His Asp Leu Leu Pro Phe
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Pro Arg Pro Gly Ser
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<212> DNA
<213> Drosophila

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 Phe Gln Leu Gly Arg Gly Glu Pro Met Leu His Thr Arg Leu Arg Pro
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 His Cys Lys Asp Phe Leu Glu Lys Ile Ala Lys Leu Tyr Glu Leu His
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 Val Phe Thr Phe Gly Ser Arg Leu Tyr Ala His Thr Ile Ala Gly Phe
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Leu Asp Pro Glu Lys Lys Leu Phe Ser His Arg Ile Leu Ser Arg Asp
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Glu Cys Ile Asp Pro Phe Ser Lys Thr Gly Asn Leu Arg Asn Leu Phe
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Pro Cys Gly Asp Ser Met Val Cys Ile Ile Asp Asp Arg Glu Asp Val
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